

Mineral Industry Surveys

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ZINC IN SEPTEMBER 2004

Domestic mine production of zinc in September of 64,100 metric tons (t) was slightly less than production in August and about 3% less than that in September 2003, according to the U.S. Geological Survey. Estimated smelter production of 24,100 t was about 18% less than that in August, but was about 12% more than production in September 2003. Apparent consumption of 87,900 t was about 19% lower than consumption in August and about 3% lower than consumption in September 2003.

The Platts Metals Week average monthly composite price for North American Special High Grade zinc declined to 49.23 cents per pound in September. The zinc price was about 23% (9.16 cents) higher than that in September 2003.

CalEnergy Co. Inc. (a subsidiary of MidAmerican Energy Holdings Co.), headquartered in the Imperial Valley, 90 miles south of Palm Springs, CA, decided to cease zinc recovery operations at its Salton Sea plant in southern California and seek a buyer for the plant in order to finance a one-time termination benefit for some of its employees. Zinc production has lagged well below the original plan of 30,000 metric tons per year (t/yr) and, despite recent increases in refined zinc prices, the company has run up large losses since it began operations in December 2002 (CRU International Ltd., 2004c).

OntZinc Corp. (Toronto, Ontario, Canada) agreed to buy Hudson Bay Mining and Smelting Co. Ltd. (Manitoba, Canada) from Anglo American International S.A. (a subsidiary of Anglo American plc) for \$259 million. OntZinc expected to conclude the transaction by yearend 2004, contingent upon securing financing and shareholder approval. At the current production rate, Hudson Bay's ore reserves could last for 13 years, with an excellent potential for further discoveries on 280,000 hectares of land owned by the company in Manitoba and Saskatchewan, Canada. Hudson Bay operates a recently expanded 100,000-t/yr zinc refinery at Flin Flon, Manitoba, where a new cell house was installed and infrastructure was upgraded. In addition, two new mining projects were developed (Platts Metals Week, 2004b). Hudson Bay's production in 2003 was estimated to have been 101,000 t of zinc in concentrate and 117,900 t of refined zinc metal (CRU International Ltd., 2004a).

Inmet Mining Corp. of Canada became the sole owner of the Cayeli copper-zinc mine in Turkey after it acquired the Turkish Government's 45% share in the mine in Madenkoy on the Black Sea coast. Operated by Cayeli Bakir Isletmeleri A.S., the mine produced about 39,000 t of copper in concentrate and 40,000 t of zinc in concentrate in 2003. With the acquisition, Inmet also acquired the Cerattepe deposit, which is currently being developed, and the Rize deposit, which is being explored for possible future development (Platts Metals Week, 2004a).

China Minmetals Zhuhai Co. (a subsidiary of China National Metals & Minerals Import & Export Corp.) was seeking to purchase Noranda Inc., another major Canadian producer. If successful, the approximately \$5 billion offer would be the biggest overseas acquisition by a Chinese company. Minmetals is China's largest importer of steel, nonferrous metals, and mineral products, and it also produces aluminum, copper, and nickel. Noranda, about 43%-owned by Canadian conglomerate Brascam Corp., is a major producer of aluminum, copper, nickel, and zinc, with mines in Canada and Chile. It also has a 59% stake in Toronto-based Falconbridge Ltd. and employs about 15,000 people in 18 countries (Yahoo, 2004¹). Some of the Canadian concerns about the sale reportedly include forced labor issues in Minmetals' past, the loss of Canadian sovereignty, job security, and questions about Minmetals' intentions for Noranda (Metal Bulletin, 2004).

As the world's leading consumer and major producer of both zinc concentrate and metal, China was expected to remain the most influential country in the world zinc market. In the last 2 to 3 years, China has been the major source of growth in zinc consumption. Although the increase in consumption in China in 2004 will probably be slightly less than that during previous years, it was expected to account for about 22% of the worldwide increase in 2004. Owing to inconsistent data, however, the significance of the Chinese economy on the zinc market is not easy to assess. In the first 8 months of 2004, at a time when economic growth was supposedly slowing, the country's apparent zinc consumption rose by more than 20%. If

¹A reference that includes a section mark (§) is found in the Internet Reference Cited section.

this rate of consumption is sustained, world production of zinc would be insufficient and inventories will continue to be drawn down (CRU International Ltd., 2004b).

References Cited

CRU International Ltd., 2004a, Company news—CRU Monitor—Zinc: CRU International Ltd., October, p. 9.
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TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

	2003	2004			
	January- December	July	August	September	January- September
Production:					
Mine, zinc content of concentrate	768,000	63,200	64,500 ^r	64,100	554,000
Mine, recoverable zinc	738,000	60,800	62,000 ^r	61,600	536,000
Smelter, refined zinc	272,000	29,200 ^e	29,300 ^e	24,100 ^e	252,000
Consumption:					
Refined zinc, reported	423,000	33,700	33,600	33,800	319,000
Ores ^e (zinc content)	727	61	61	61	546
Zinc-base scrap ^e (zinc content)	191,000	15,900	15,900	15,900	143,000
Copper-base scrap ^e (zinc content)	176,000	14,700	14,700	14,700	132,000
Aluminum-and magnesium-base scrap ^e (zinc content)	1,430	120	120	120	1,080
Total ^e	791,000	64,400	64,300	64,500	595,000
Apparent consumption, metal ²	1,050,000	94,700	109,000 ^r	87,900 ³	884,000 ³
Stocks of refined (slab) zinc, end of period:					
Producer ⁴	XX	6,390	6,370	7,020	XX
Consumer ⁵	XX	57,500	53,500	53,700	XX
Merchant	XX	11,500	9,930 ^r	9,790	XX
Total	XX	75,400	69,800 ^r	70,500	XX
Shipments of zinc metal from Government stockpile	13,600	44	3,360	--	28,900
Imports for consumption:					
Refined (slab) zinc	758,000	70,600	64,700	NA	535,000 ⁶
Oxide (gross weight)	98,300	8,970	9,570	NA	71,800 ⁶
Ore and concentrate (zinc content)	164,000	--	23,100	NA	152,000 ⁶
Exports:					
Refined (slab) zinc	1,680	141	231	NA	2,810 ⁶
Oxide (gross weight)	12,100	1,130	1,100	NA	9,650 ⁶
Ore and concentrate (zinc content)	841,000	179,000	212,000	NA	448,000 ⁶
Waste and scrap (gross weight)	50,200	2,090	6,170	NA	34,800 ⁶
Price:					
London Metal Exchange, average, dollars per metric ton	\$827.32	\$987.94	\$975.39	\$974.83	\$1,025.41
Platts Metals Week North American Special High Grade, average, cents per pound	40.63	50.08	49.44	49.23	51.44

^eEstimated. ^rRevised. NA Not available. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; except prices; may not add to totals shown.

²Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

³Data based on reported consumption, stocks, and estimated trade data.

⁴Data from U.S. Geological Survey and American Bureau of Metal Statistics.

⁵Includes an estimate for companies that report annually.

⁶Includes data through August only.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES¹

(Metric tons)

Month	Beginning stocks ²	Production	Shipments	Ending stocks ²
2003:				
September	8,230	21,600	22,100	7,790
October	7,790	21,800	21,300	8,300
November	8,300	23,500	23,800	8,010
December	8,010	20,200	20,500	7,660
Year	XX	272,000	273,000	XX
2004:				
January	7,660	26,900	28,100	6,440
February	6,440	26,900	28,100	5,230
March	5,230	28,900	28,200	5,960
April	5,960 ^e	29,600	28,300	7,300
May	7,300 ^e	28,600	28,300	7,660
June	7,660 ^e	28,600 ^e	29,900	6,340
July	6,340 ^e	29,200 ^e	29,200	6,390
August	6,390 ^e	29,300 ^e	29,300	6,370
September	6,370 ^e	24,100 ^e	23,400	7,020
January-September	XX	252,000	253,000	XX

^eEstimated. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes stocks held at locations other than smelters.

Sources: U.S. Geological Survey and American Bureau of Metal Statistics.

TABLE 3
APPARENT CONSUMPTION OF REFINED ZINC ACCORDING TO INDUSTRY USE AND PRODUCT¹

(Metric tons)

Industry and product	2003	2004			
	January- December	July	August	September ²	January- September ²
Galvanizing:					
Sheet and strip	442,000	38,700	45,000 ^r	36,700	362,000
Other	146,000	13,400	16,800 ^r	12,300	128,000
Total	588,000	52,100	61,800 ^r	49,000	490,000
Brass and bronze	167,000	15,800	16,200	13,200	144,000
Zinc-base alloy	222,000	20,000	22,900 ^r	18,800	185,000
Other uses ³	70,700	6,900	7,800	6,800	64,600
Grand total	1,050,000	94,700	109,000 ^r	87,900	884,000

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data based on reported consumption, stocks, and estimated trade data.

³Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, castings, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 4
AVERAGE MONTHLY ZINC PRICES¹

Period	North American	LME ² cash	
	¢/lb.	¢/lb.	\$/t
2003:			
September	40.07	37.10	817.81
October	43.70	40.71	897.54
November	44.80	41.47	914.16
December	47.85	44.33	977.35
Year	40.63	37.53	827.32
2004:			
January	49.93	46.11	1,016.62
February	53.84	49.32	1,087.26
March	55.25	50.14	1,105.37
April	52.09	46.82	1,032.28
May	51.76	46.63	1,027.93
June	51.33	46.32	1,021.08
July	50.08	44.81	987.94
August	49.44	44.24	975.39
September	49.23	44.22	974.83
January-September	51.44	46.51	1,025.41

¹Special High Grade.

²London Metal Exchange.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC¹

Material	2003		2004 ²			
			August		Year to date	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	1,680	\$1,760	231	\$253	2,810	\$4,630
Ore and concentrate (zinc content)	841,000	337,000	212,000	117,000	448,000	235,000
Waste and scrap (gross weight)	50,200	32,600	6,170	5,220	34,800	29,800
Powders, flakes, dust (zinc content)	6,550	9,090	599	927	5,200	9,020
Oxide (gross weight)	12,100	15,200	1,100	1,430	9,650	13,400
Chloride (gross weight)	1,470	1,650	181	195	1,360	1,540
Sulfate (gross weight)	2,310	1,440	177	110	2,240	1,320
Compounds, other (gross weight)	183	472	25	96	112	327

¹Data are rounded to no more than three significant digits.

²Data for September 2004 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

Material	2003		2004 ²			
	Quantity (metric tons)	Value (thousands)	August		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	758,000	\$647,000	64,700	\$72,000	535,000	\$588,000
Ore and concentrate (zinc content)	164,000	60,000	23,100	12,500	152,000	58,400
Waste and scrap (gross weight)	10,300	5,740	988	636	6,880	4,740
Powders, flakes, dust (zinc content)	27,400	41,200	2,530	4,090	16,400	26,700
Oxide (gross weight)	98,300	72,200	9,570	8,010	71,800	59,900
Chloride (gross weight)	663	914	45	79	538	645
Sulfate (gross weight)	25,800	11,700	2,330	1,220	19,000	9,060
Compounds, other (gross weight)	1,010	951	497	403	2,410	2,070

¹Data are rounded to no more than three significant digits.

²Data for September 2004 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 7
SHIPMENTS OF ZINC METAL FROM THE NATIONAL DEFENSE
STOCKPILE¹

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2003:			
September	103,000	841	102,000
October	102,000	--	102,000
November	102,000	539	102,000
December	102,000	6,270	95,200
Year	XX	13,600	XX
2004:			
January	95,200	3,340	91,900
February	91,900	--	91,900
March	91,900	2,920	89,000
April	89,000	3,340	85,600
May	85,600	14,700	70,900
June	70,900	1,170	69,800
July	69,800	44	69,700
August	69,700	3,360	66,400
September	66,400	--	66,400
January-September	XX	28,900	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Defense Logistics Agency.

TABLE 8
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY^{1,2}

(Metric tons)

Material and country	General imports			Imports for consumption		
	2003	2004		2003	2004	
		August	Year to date		August	Year to date
Ore and concentrate (zinc content):						
Australia	43,400	--	19,300	43,400	--	19,300
Ireland	36,500	3,460	10,800	36,500	3,460	10,800
Mexico	9,400	--	5,800	9,400	--	5,800
Peru	74,600	19,600	115,000	74,600	19,600	115,000
Other	--	--	877	--	--	877
Total	164,000	23,100	152,000	164,000	23,100	152,000
Blocks, pigs, or slab:						
Australia	22,000	--	7,940	14,400	--	26,800
Brazil	27,600	1,000	20,600	22,400	1,000	20,600
Canada	498,000	45,600	332,000	498,000	45,600	332,000
China	23,800	--	33	48	547	8,750
Japan	50	--	--	--	--	690
Kazakhstan	19,700	--	2,310	19,700	--	2,310
Korea, Republic of	34,000	--	7,730	1,340	1,870	21,700
Mexico	141,000	11,900	80,500	141,000	11,900	80,500
Namibia	16,100	2,530	20,400	16,100	2,530	20,400
Peru	43,400	1,290	13,600	42,900	1,290	18,400
Poland	1,600	--	--	1,600	--	--
Other	1,050	--	201	121	--	2,870
Total	829,000	62,300	485,000	758,000	64,700	535,000
Dross, ashes, fume (zinc content)	14,100	1,280	10,600	14,100	1,280	10,600
Grand total	1,010,000	86,600	648,000	936,000	89,000	697,000
Oxide (gross weight):						
Canada	47,300	4,380	32,700	47,300	4,380	32,700
China	575	--	187	575	--	187
Italy	770	2,310	9,210	770	2,310	9,210
Japan	965	99	744	965	99	744
Mexico	40,500	2,170	25,100	40,500	2,170	25,100
Netherlands	4,820	553	3,320	4,820	553	3,320
Other	3,420	58	581	3,420	58	581
Total	98,300	9,570	71,800	98,300	9,570	71,800
Other (gross weight):						
Waste and scrap	10,300	988	6,880	10,300	988	6,880
Sheets	1,790	428	2,040	1,790	428	2,040
Powders, flakes, dust (zinc content)	27,500	2,530	16,400	27,400	2,530	16,400

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data for September 2004 were not available at time of publication.

Source: U.S. Census Bureau.